

What is claimed is:

1. An acoustic device comprising:
a case;
a plurality of substrates disposed in said case; and
5 said plurality of substrates being disposed substantially aligned vertically
and roughly parallel to each other.
2. An acoustic device according to claim 1, further comprising:
a heat sink attached to said case;
said heat sink including a base;
10 said heat sink further including a plurality of fins affixed to said base and
extending outward for dissipating heat to the environment; and
a heat-generating amplifying element attached to said base, whereby heat
generated in said amplifying element is conducted outward through said base to
said plurality of fins.
- 15 3. An acoustic device as described in claim 1 wherein:
said case is affixed to a power supply; and
said power supply includes at least a transformer.
4. An acoustic device as described in claim 3 wherein:
a one of said substrates performing amplification on the smallest acoustic
20 signal is positioned furthest from said power supply.
5. An acoustic device according to claim 3, wherein said plurality of
substrates are resiliently supported in said case, whereby mechanical vibration in
said case is isolated from said plurality of substrates.
6. An acoustic device according to claim 5, wherein each of said plurality

of substrates is resiliently supported independently of a remainder thereof.

7. An acoustic device comprising:

a housing;

a circuit element mounted in said housing;

a case on said circuit element;

a cover covering a top of said case; and

an opening disposed on said cover and through which wire passes for connection of said circuit element to other elements in said acoustic device.

8. An acoustic device according to claim 7, further comprising:

an attachment member; and

said attachment member attaching a bottom of said case to said housing.

9. An acoustic device according to claim 8, wherein:

said circuit element is a transformer; and

said attachment member includes a resilient element for resiliently attaching said bottom of said case to said housing, whereby vibration from said transformer is isolated from a remainder of said acoustic device.

10. An acoustic device according to claim 9, wherein said transformer is a toroidal transformer.

11. An acoustic device as described in claim 9, wherein:

said transformer includes at least one winding in said case;

a filler in said case;

said filler occupying an interior of said case about said at least one winding and securing and supporting said at least one winding in said case.

12. An acoustic device comprising:

at least one connecting member disposed at an outer surface of said acoustic device for providing electrical connection with another device; and

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a groove formed to a predetermined depth about a perimeter of said connecting member at said outer surface; and

a width and depth of said groove being effective for blocking entry of electrical interference into an interior of said acoustic device.

5 13. An acoustic device according to claim 12, wherein:

said at least one connecting member includes a plurality of connecting members; and

each of said plurality of connecting members includes a groove about its perimeter for blocking the entry of electrical interference through any thereof into said interior.

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14. An acoustic device as described in claim 12 further comprising:

an attachment member supporting said connecting member;

said attachment member being independent of said wherein said connecting member is attached to an attachment member formed as a separate member from a case of said acoustic device; and

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resilient means for affixing said attachment member to said case, whereby mechanical vibration is blocked from entering said acoustic device through said connecting member.

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15. An acoustic device as described in claim 14 wherein said resilient means includes an elastic member interposed between said attachment member and said case so that said attachment member is attached with a fixed pressure to said case.

16. An acoustic device comprising:

a groove formed on the inside of an acoustic device case;

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at least one wire disposed inside said groove; and

a cover covering said groove, whereby induction of interference into said

at least one wire is prevented.

→ 17. An acoustic device comprising:

a hollow pipe disposed inside an acoustic device case; and
at least one wire disposed in said pipe.

5 → 18. An acoustic device comprising:

a heat sink;
said heat sink including a base;
at least one power amplifier element affixed to said base; and
a plurality of fins extending roughly radially from said base.

10 19. An acoustic device according to claim 18, further comprising:
a connection between adjacent tips of said fins to prevent vibration
thereof.

15 20. An acoustic device according to claim 18, wherein at least some of
said plurality of fins have different dimensions from a remainder thereof, whereby
resonance of said plurality of fins is prevented.

21. An acoustic device according to claim 20, wherein said dimensions
are lengths.

22. An acoustic device as described in claim 18 wherein ends of said
plurality of fins roughly lie along an arc centered on a point.

20 23. An acoustic device as described in claim 22 wherein:

said at least one power amplifier element includes a plurality of
semiconductor elements attached to said heat sink; and

said semiconductor elements are disposed roughly equidistant from said
point.

25 24. An acoustic device according to claim 18, wherein:

said heat sink includes a plurality of heat sink modules;

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said heat sink modules being assembled with tips of said fins directed outward; and

at least one power amplifier element affixed to a base of each of said heat sink modules.

5 25. An acoustic device according to claim 24, wherein said power amplifier elements are distributed generally symmetrically about a central axis of said heat sink.

26. An acoustic device according to claim 24, further comprising:

a center sleeve in said acoustic device; and

10 each of said heat sink modules being resiliently and independently affixed to an exterior of said center sleeve.

→ 27. An acoustic device comprising:

an electronic part that vibrates when powered is applied thereto;

15 said electronic part being attached to said electronic device via an elastic member to absorb vibration from said electronic part; and

said elastic member having an elasticity appropriate to a weight of said electronic part.

28. An acoustic device as described in claim 27 wherein said electronic part is a transformer.

20 29. An acoustic device comprising:

a power supply;

said power supply being substantially circular;

a transformer in said power supply;

a smoothing capacitor in said power supply; and

25 said transformer and said smoothing capacitor are disposed along an outer perimeter of said substantially circular power supply.

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31.) A power supply for an acoustic device comprising:

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32. A power supply according to claim 31, wherein distribution of said power supply parts is generally symmetrical from a weight standpoint.

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